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Amendment

(Amendment under Article 34 of the Patent Cooperation Treaty)

To: Mr. N. Nakazawa, Examiner of Japanese Patent Office

1. Identification of the international application PCT/JP03/04138

2. Applicants

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4. Subject of amendment

Claims

5. Detail of amendment

(1) Claims 1 to 4, page 9 of claims are amended as follows;

1. A bonding structure for a refractory sleeve attached to the inside of a continuous casting nozzle to define an inner hole of said nozzle, wherein said sleeve contains 20 mass% or more of CaO, said bonding structure comprising a joint formed by defining a joint zone in either one of at least a portion of the outer peripheral surface of said sleeve and at least a portion of the inner surface of a hollowed body of said nozzle to which said sleeve is attached, or between the inner surface of said body and the outer peripheral surface of said sleeve inserted into said body, and applying an adhesive including a mixture of a refractory aggregate and a binder, to said joint zone, said adhesive being adjusted to have a porosity in the range of 15 to 90% after dried in said joint zone.

2. The bonding structure as defined in claim 1, wherein said adjustment for allowing said adhesive to have a porosity in the range of 15 to 90% after dried in said joint zone is performed by changing an amount of solvent and binder constituting said adhesive, or a filled amount of said adhesive.

3. The bonding structure as defined in claim 1 or 2, wherein said refractory aggregate constituting said adhesive to be applied to said joint zone includes a primary refractory aggregate containing MgO as a primary component.

4. The bonding structure as defined in claim 3, wherein said primary refractory aggregate constituting said adhesive to be applied to said joint zone includes 70 mass% or more of refractory aggregate which contains MgO having a particle size of 0.5 mm or less as a primary component, and 30 mass% or less of one or more substances including alumina and/or aluminum in the form of Al_2O_3 .

6. List of attachments

(1) Page 9 of claims

What is claimed is:

1. A bonding structure for a refractory sleeve attached to the inside of a continuous casting nozzle to define an inner hole of said nozzle, wherein said sleeve contains 20 mass% or more of CaO, said bonding structure comprising a joint formed by applying an adhesive to a joint zone defined in either one of at least a portion of the outer peripheral surface of said sleeve and at least a portion of the inner surface of a hollowed body of said nozzle to which said sleeve is attached, or between the inner surface of said body and the outer peripheral surface of said sleeve inserted into said body, said adhesive including a mixture of a refractory aggregate and a binder, a porosity of said adhesive in said joint zone being adjusted in the range of 15 to 90% in its dried state.
2. The bonding structure as defined in claim 1, wherein said porosity is adjusted by changing an amount of solvent and binder constituting said adhesive, or a filled amount of said adhesive.
3. The bonding structure as defined in claim 1, wherein said refractory aggregate constituting said adhesive includes a primary refractory aggregate containing MgO as a primary component.
4. The bonding structure as defined in claim 3, wherein said adhesive includes 70 mass% or more of refractory aggregate which contains MgO having a particle size of 0.5 mm or less as a primary component, and 30 mass% or less of one or more substances including alumina and/or aluminum in the form of Al_2O_3 .